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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,073	08/11/2003	Bohumil Lojek	ATM-250	6954
3897	7590	10/01/2004	EXAMINER	
SCHNECK & SCHNECK			HUYNH, ANDY	
P.O. BOX 2-E			ART UNIT	
SAN JOSE, CA 95109-0005			PAPER NUMBER	
			2818	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/639,073

Applicant(s)

LOJEK, BOHUMIL

Examiner

Andy Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-9, 11-18 and 20-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 5-9, 12-18 and 22-25 is/are allowed.
6) ☒ Claim(s) 11, 20 and 21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

In Amendment dated August 30, 2004, Applicant has amended the specification, the drawings, claims 5, 7-9, 11-13, 15-18, and 20-21, canceled claims 10 and 19, and added new claims 22-25 is acknowledged. Accordingly, claims 5-9, 11-18 and 20-25 are currently pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoang (USP: 6,420,753), Applicant submitted prior art (ASPA), in view of Tanaka et al. (USP: 6,567,313 hereinafter referred to as "Tanaka").

Hoang discloses in Fig. 4c and related texts as set forth in column 8, lines 13-36, line 58-col. 10, line 61, a semiconductor memory device comprises:

a memory array (180) arranged into a plurality rows (190) and a plurality of columns (192), said memory array further comprising a plurality of block alterable memory cells (182), each block alterable memory cell having a substrate layer (130) with a source implant region/doped region/a source region (136), an active region (a region is laying between doped regions (132) and (134)), a floating gate transistor region/a doped region (134), a drain implant

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region/doped region/a drain region (132), a tunnel oxide layer /a first insulating layer (144, 146, 148) overlaying a portion of said substrate layer, a first layer/a floating gate layer (140) overlaying said tunnel oxide layer/the first insulating layer, an interpoly layer/a second insulating layer (150) overlaying said first layer/the floating gate layer, and a second layer/a control gate layer (138) extending over said floating gate transistor region and said active region to an edge of said drain implant region/doped region/the drain region (Fig. 4c).

Hoang fails to teach a semiconductor memory device comprises an input/output port in communication with said memory array; and a controller coupled to said input/output port and said memory array.

Tanaka teaches in Figs. 1 and 2 and the corresponding texts as set forth in column 5, line 58-column 7, line 17, a flash memory FLASH has a memory array in which memory cells each constructed by an MOSFET having a control gate and a floating gate are arranged in a matrix; a flash controller FLC for writing and erasing data to/from the flash memory, and an interface circuit I/O including an input/output port such as a serial communication port for performing serial communication with an input/output buffer or an external device for outputting a signal on the internal bus BUS to an external bus or capturing a signal on the external bus.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include an input/output port in communication with the memory array for performing serial communication with an input/output buffer or an external device for outputting a signal on the internal bus BUS to an external bus or capturing a signal on the external bus; and a controller coupled to the input/output port and the memory array for writing and erasing data to/from the flash memory, as taught by Tanaka.

Allowable Subject Matter

Claims **5-9, 12-18, and 22-25** are allowed.

Conclusion

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Huynh whose telephone number is (571) 272-1781. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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09/28/04



David Nelms
Supervisory Patent Examiner
Technology Center 2800